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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Andrew Chopaitis

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EXAMINER

GISHNOCK, NIKOLAI A

ART UNIT

PAPER NUMBER

3714

MAIL DATE

DELIVERY MODE

06/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/511,036	Applicant(s) CHEPAITIS, ANDREW	
	Examiner Nikolai A. Gishnock	Art Unit 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,8-20,22,23,27-31,36-45 and 48-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,8-20,22,23,27-31,36-45 and 48-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

In response to Applicants reply filed 2/19/2008, claims 2-7, 21, 24-26, 32-35, 46, & 47 are cancelled. Claims 1, 8-20, 22, 23, 27-31, 36-45, & 48-58 are pending.

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1, 8-20, 22, 23, & 27-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A dynamic font as recited in claim 1 is understood to be a data structure, because it merely describes attributes of symbols. Computer programs claimed as listings and data structures not claimed as embodied in computer-readable media are descriptive material per se, and are non-statutory because they do not define any structural or functional interrelationships between the program and/or data structure and other elements of a manufacture or machine. The claims fail because they are not directed to a process that permits the claimed functionality to be realized. See MPEP 2106.01 I.

3. Claims 31, 36-45, & 48-58 are rejected under 35 U.S.C. §101 as being directed to nonstatutory subject matter. The claims fail to produce a tangible effect. The requirement to be tangible is for the claim to produce a real-world result or beneficial product. The claims fail because they merely evaluate abstract functions and do not bring about a substantial application. If the claim does not entail transformation of an article, then the claim shall be reviewed to determine that it produces a useful, tangible, and concrete result. In making this determination, the focus is not on whether the steps taken to achieve a particular result are useful, tangible, or concrete, but rather on whether the final result achieved by the claimed

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invention is useful, tangible, and concrete. If the claims are found not to have such a practical application, then the claim is determined to be nonstatutory. See MPEP 2106. The limitations of including displaying the font on a display screen and locating the elements within the frames depending on the font size on the display screen (of dependent claim 36), do not cause an output or other indication to a user that something has occurred, thus the method fails to produce a tangible output. Also, the recited method comprising steps of changing the spacing, line width, element ratios, location, or shape of symbols *when* the font size changes, in the condition where the font size does not change, causes no method steps to occur, thus an enumerated statutory category is not claimed. Further, the claimed limitations fail to provide a method that is tied to another statutory class or transforms an underlying article, apparatus, or material. The claimed method of changing a font also appears to recite purely mental steps, and thus fails to positively recite the other statutory class (the thing or product) to which it is tied, or the material being transformed. See *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

Response to Amendment

4. The declaration under 37 CFR 1.132 filed 2/19/2008 is insufficient to overcome the rejection of claims based upon 35 USC §103 as set forth in the last Office action because: The declaration allegedly differentiates the prior art tactile code of US 4,737,108 and the recited dynamic font of the instant claims. However, obviousness between the designs of the typeface is not germane to the rejection at hand when the prior art tactile code anticipates the design features of the claimed font. The instant rejection under 35 USC §103 is the prima facie obviousness between a dynamic font having claimed attributes as taught below in view of a

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method of modifying the attributes of a font. Thus, the declaration fails to provide evidence of non-obviousness of the claims in view of the teachings of US 4,737,108, Desrosiers, and Jeffrey.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1, 8, 13-20, 22, 23, 28-31, 36, 38-45, 48, 49, & 56-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chepaitis (US 4,737,108), hereinafter known as Chepaitis '108, in view of Desrosiers (US 6,057,858), hereinafter known as Desrosiers, and further in view of Jeffrey, Alan. *A Postscript Font Installation Package Written in TeX*. University of Sussex, Brighton, UK, TUGboat, The Communications of the TeX Users Group, Volume 14 (October 1993), No. 3. p. 285-292, hereinafter known as Jeffrey.

8. Chepaitis '108 teaches a font comprising a plurality of alphabetic symbols corresponding to the letters of the Roman alphabet, the alphabetic symbols being grouped divided into first,

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second, third, and fourth regions, the first and third regions having circular frames and the second and fourth regions having square frames (2:7-20), wherein: wherein at least some of the alphabetic symbols and numeric include elements within the frames (see Figures 1 & 2; circles, lines triangles, S's, and dots are all found within square or circular frames), and each of the alphabetic symbols embodies at least a physical association with its corresponding capital letter of the Roman alphabet (2:3-6). What Chepaitis '108 fails to teach is a dynamic font [Claim 1], and a process of changing a font [Claim 31], wherein each of the alphabetic symbols changes shape according to font size, holding certain font attributes constant while varying other font attributes as font size changes [Claims 1 & 31]. However, Desrosiers teaches a dynamic font, which is scalable, i.e., used to render characters in multiple sizes and resolutions, and having one or more types of embedded color scheme data used in conjunction with embedded transformation data, such as color scheme data and/or character shape data (5:18-30). Desrosiers also teaches a method of rendering a character by utilizing the dynamic font characteristics (7:10-13). In this case, the transformation data comprises descriptions for transforming the shapes and colors of the characters as they are scaled (6:41-60). Desrosiers also teaches where certain font attributes (such as a character code) are held constant, while other attributes (such as character shapes or colors) are varied as font size changes (entries in parameters may be accessible as a function of character code; entries in the parameters section reference information may contain specifications of transformation of one or more elements in the MCF {font}, 19:48-20:7; also, algorithms for deriving shapes by altering shapes to provide renditions of characters in angled presentation and deriving colors by interpolating colors, 20:23-35; see also the Abstract). Additionally, Desrosiers teaches a multiple media font which can be used as a tactile font, for outputting textures and shapes in more than two dimensions (7:47-8:8), and using additional three-dimensional font information, such as texture

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arrays, specifying shapes and texture (31:44-54). Transformation character data as taught by Desrosiers are understood to be dependent on other character data, such as scale, while other character data, such as texture, audio, or fragrance are not. The character data parameters and transformations by shape, scale, or color would be used to augment the font of Chepaitis '108. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to implement the dynamic, scalable transformations of Desrosiers in the font taught by Chepaitis '108, in order to allow a character font to carry embedded information corresponding to color or shape, such as for providing three-dimensional molds for industrial use [Claims 1 & 31].

9. Desrosiers teaches holding certain font attributes constant while varying other font attributes as font size changes (19:48-20:7). What Chepaitis '108 and Desrosiers fail to explicitly teach is wherein spacing between the alphabetic and numeric symbols changes by a non-constant ratio as the font size changes, such that the spacing between symbols varies only slightly when the font size changes [Claims 1, 17, 31, & 42], or wherein the line width of the alphabetic and numeric symbols changes by a non-constant ratio as the font size changes, such that the line width of the symbols varies only slightly when the font size changes [Claims 1, 18, 31, & 43]. However, Jeffrey teaches a font package, incorporating the \lkern, \rkern, \scale, and \lrkern commands, provided to scale the kerning of characters (p. 288, column 1, line 27 to column 2, line 9). Kerning is understood to be the adjustment of space between character pairs. Because the kerning scale is adjustable, it is non-constant. The kerning is also a ratio of the space size to the character size ('T' should kern 85% as much as 'T'). Altering the kerning scale of the font would also change the line width, because as space between the characters is removed, the total space occupied by a line decreases. Further, the kerning of Jeffrey makes only slight changes to the spacing, in comparison to the difference in the size of the scaled

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character. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have used the kerning adjustment of the font of Jeffrey, with the means to adjust the kerning as font size changes of Desrosiers, in the font of Chepaitis '108, in order to customize the font encodings for applications [Claims 1, 17, 18, 31, 42, & 43].

10. Chepaitis '108 teaches a plurality of numeric symbols have diamond-shaped frames (2:20-23) [Claims 16 & 41].

11. What Chepaitis '108 and Desrosiers fail to explicitly teach is wherein the locations of at least some of the elements of the alphabetic or numeric symbols change by non-constant ratios as the font size changes [Claims 1, 19, 31, & 44], wherein at least some of the alphabetic and numeric symbols include elements within the frames, and wherein the sizes of the elements can vary in different, non-constant proportions to each other as the font size changes [Claims 1, 22, 31 & 48], or wherein at least some of the alphabetic and numeric symbols include elements within the frames, and wherein at one font size, the location of the elements within the frames depends upon the location of the alphabetic and numeric symbol on a display screen [Claims 8, 23, 36, & 49]. However, Jeffrey teaches the use of the `\vchar`, `\defchar`, `\getchar`, `\map`, and `\missingchar` commands (Installing a New Encoding, p. 287, Column 2, Lines 20 – 49 & p. 288, Column 2, Lines 10 through 49), for generating fonts using multiple elements. The macros defined by `\defchar` would be used along with the previously demonstrated sizing commands to define the elements' locations, sizes, and presence inside the frame at a given font size. Further, the `\startfont`, `\stopfont`, and `\boundarychar` commands would define the element's locations, sizes, and presence depending on the symbols' location on the screen at the beginning or end of a string of symbols. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have used the commands of Jeffrey to change the locations, sizes, and presence of elements by non-constant ratios,

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depending on the font size or location on the display screen, in the font of Chepaitis '108, in light of the teachings of Desrosiers, in order to customize the font encoding for software applications [Claims 1, 8, 19, 22, 23, 31, 36, 44, 48, & 49].

12. What Chepaitis '108 further fails to teach is wherein the alphabetic and numeric symbols are printed or displayed using a combination of colors [Claims 13, 28, 38, & 56]. However, Desrosiers teaches rendering scalable characters in one or more colors, shades, intensities, and transparencies (6:41-60). The methods taught by Desrosiers would be used to render the font of Chepaitis '108. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have displayed the font taught by Chepaitis '108 in a combination of colors, as taught by Desrosiers, in order to render characters in an eye-catching manner, as is commonly seen in advertising, packaging, and signage [Claims 13, 28, 38, & 56].

13. Chepaitis '108 teaches wherein the alphabetic and numeric symbols are tactile (a tactile code, 2:60-61) [Claim 14, 29, 39, & 57].

14. Chepaitis '108 teaches wherein the alphabetic and numeric symbols are embossed on a surface using a tactile printing medium (symbols are embossed on a heavy grade of paper, 2:63-67) [Claim 15, 30, 40, & 58].

15. What Chepaitis '108 and Desrosiers further fail to explicitly teach is wherein the shape of the alphabetic and numeric symbol changes as the font size changes [Claims 20 & 45].

However, Jeffrey teaches the use of the \afmunits, \fontdimens, and \ligature commands (Installing a New Encoding, p. 287, Column 1, Line 28 through p. 288, Column 1, Line 26) for generating fonts of various sizes (Usage, p. 285, Column 2, lines 10-12), which contain information related to the font dimension parameters. These commands would be used to change the shape of the font of Chepaitis '108, as the scale changes, as taught by Desrosiers. Ligatures especially are used to make particular combinations of letters look cleaner and more

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visible at large point sizes. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to change the shape of the font symbols of Chepaitis '108, using the commands of Jeffrey, in light of the transforms of Desrosiers, in order to customize the font encoding for applications [Claims 20 & 45].

16. Claims 11 & 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chepaitis '108, in view of Desrosiers and Jeffrey, as applied to claims 1, 16, & 31 above, and further in view of Fujisawa et al. (US 4,654,873), hereinafter known as Fujisawa.

17. Chepaitis '108, Desrosiers, and Jeffrey teach all the features as demonstrated above in the rejection of claims 1, 16, & 31. What Chepaitis '108, Desrosiers, and Jeffrey fail to teach is wherein the frames of some of the alphabetic symbols have gaps therein [Claims 11 & 54]. However, Fujisawa teaches writing characters in square frames, which have gaps therein (Figures 1a, 1b, 2a, and 2b). The gapped frames of Fujisawa would be used to segment the characters of a word in the font. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have alphabetic or numerical symbols with gaps therein, as taught by Fujisawa, in the font of Chepaitis '108, in light of the teachings of Desrosiers and Jeffrey, in order to write the characters in a relaxed style [Claims 11 & 54].

18. Claims 12, 27, 37, & 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chepaitis '108, in view of Desrosiers and Jeffrey as applied to claims 1, 16, 31, & 41 above, and further in view of Prince et al. (US 6,568,938 B1), hereinafter known as Prince.

19. Chepaitis '108, Desrosiers, and Jeffrey teach all the features as demonstrated above in the rejection of claims 1, 16, 31, & 41. What Chepaitis '108, Desrosiers, and Jeffrey fail to teach is wherein some portions of the alphabetic and numeric symbols are printed in colored ink and

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other portions are printed in non-colored ink to emphasize the physical association with their corresponding capital letter of the Roman alphabet [Claims 12, 27, 37, & 55]. However, Prince teaches a printed drawing aid comprising image guide frames, which can be printed using white titanium-dioxide ink (5:43-51). The frames of Prince would be printed in a white color to delineate the font characters of Chepaitis '108. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have printed the frames of Chepaitis '108 in a non-colored ink, as taught by Prince, and in light of the teachings of Desrosiers and Jeffrey, in order to guide and grid an image pattern [Claims 12, 27, 37, & 55].

Response to Arguments

20. Applicant's arguments filed 2/19/2008, see pages 13-18 have been fully considered but they are not persuasive. Applicant states on pages 14-16 that the declaration filed under rule 1.132 demonstrates that reasonable success could not be expected when modifying the tactile design of Chepaitis using the methods of Desrosiers and Jeffrey. However, the declaration provides only evidence of improvements to the design of the ELIA code. No evidence demonstrating how the claimed modifying of a font using the methods of Desrosier and Jeffrey would not have been expected to be reasonably successful in varying the attributes of Chepaitis '108 or the updated ELIA code. Thus, the declaration is not relevant to the rejection at and; therefore Applicant's argument is not convincing.

21. Applicant's further arguments with respect to dependent claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dresevic et al. (US 6,253,374 B1) discloses a method of validating a TrueType™ font, where the method is used to validate a font file that contains hints prior to using the hints to render a glyph on an output device, such as a monitor or a printer. A glyph is a representation of one or more characters. A single glyph may represent a single character, such as the lowercase letter "f", or a single glyph may represent a string of characters, such as the ligature "fi". A hint is an instruction, written in a font language, such as the TrueType™ language, that specifies how a glyph outline, scaled to a particular size, is to be adjusted on the target output device.

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikolai A. Gishnock whose telephone number is (571)272-1420. The examiner can normally be reached on M-F 8:30a-5p.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan M. Thai can be reached on 571-272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

6/3/2008
/N. A. G./
Examiner, Art Unit 3714

/Ronald Laneau/
Supervisory Patent Examiner, Art Unit 3714
06/06/08